

Application No. 10/615,150
Amendment dated November 22, 2006
Reply to Office action of August 22, 2006

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Listing of Claims

Claims 1-19: canceled

20. (previously presented): An induction bonding apparatus for bonding a first bond sheet substantially comprising a first bonding material to a first base sheet of a first base material and for bonding a second bond sheet substantially comprising a second bonding material to a second base sheet of a second base material, the apparatus comprising:

a means for bringing the first base sheet adjacent to the first bond sheet to form a first adjacently disposed base-bond sheet;

a means for bringing the second base sheet adjacent to the second bond sheet to form a second adjacently disposed base-bond sheet;

a means for bringing the first bond sheet of the first adjacently disposed base-bond sheet adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to form a back-to-back layered sheeting arrangement; and

one or more induction coils through which the back-to-back layered sheeting arrangement passes to inductively heat at least the first and second base sheets to bond the first bond sheet to the first base sheet and form a first bonded sheet, and to bond the second bond sheet to the second base sheet to form a second bonded sheet.

21. (previously presented): The induction bonding apparatus of claim 20 further comprising a means for cutting one or more bonded products from the first and second bonded sheets.

22. (previously presented): The induction bonding apparatus of claim 20 wherein the first and second base sheets each comprise a substantially electrically conductive composition and the first and second bond sheets each comprise a substantially non-electrically conductive composition whereby the first and second base sheets are inductively heated and the adjacent first and second bond sheets are melted by the inductively heated first and second base sheets to form the first and second bonded sheets.

23. (previously presented): The induction bonding apparatus of claim 22 wherein a sheet of heat resistant material is inserted between the adjacently disposed first and second bond sheets.

24. (previously presented): A method of bonding a first bond sheet substantially

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comprising a first bonding material to a first base sheet comprising a first base material and a second bond sheet substantially comprising a second bonding material to a second base sheet comprising a second base material, the method comprising the steps of:

placing the first bond sheet adjacent to the first base sheet to form a first adjacently disposed base-bond sheet;

placing the second bond sheet adjacent to the second base sheet to a second adjacently disposed base-bond sheet;

placing the first bond sheet of the first adjacently disposed base-bond sheet adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to form a back-to-back layered sheeting arrangement; and

inductively heating the back-to-back layered sheeting arrangement by passing the back-to-back layered sheeting arrangement through one or more induction coils to form a first bonded sheet comprising the first bond sheet bonded to the first base sheet and a second bonded sheet comprising the second bond sheet bonded to the second base sheet.

25. (previously presented): The method of claim 24 further comprising the step of inserting a sheet of heat resistant material between the adjacently disposed first and second bond sheets prior to the step of inductively heating.

26. (previously presented): The method of claim 24 further comprising the step of forming the first and second bonding materials from substantially non-electrically conductive materials and forming the first and second base materials from substantially non-electrically conductive materials whereby the first and second base sheets are inductively heated and the adjacent first and second bond sheets are melted by the inductively heated first and second base sheets to form the first and second bonded sheets.

27. (previously presented) The method of claim 26 further comprising the step of inserting a sheet of heat resistant material between the adjacently disposed first and second bond sheets prior to the step of inductively heating.

28. (previously presented): A method of forming one or more bonded products, the method comprising the steps of:

placing a first bond sheet comprising a substantially non-electrically conductive composition adjacent to a first base sheet comprising a substantially electrically

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conductive composition to form a first adjacently disposed base-bond sheet;

placing a second bond sheet comprising a substantially non-electrically
conductive composition adjacent to a second base sheet comprising a substantially
electrically conductive composition to form a second adjacently disposed base-bond
sheet;

placing the first bond sheet of the first adjacently disposed base-bond sheet
adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to
form a back-to-back layered sheeting arrangement;

inductively heating the first and second base sheets by passing the back-to-back
layered sheeting arrangement through one or more induction coils;

melting the first and second bond material sheets from the heat of the inductively
heated first and second base material sheets to form a first bonded sheet comprising the
first bond sheet bonded to the first base sheet and a second bonded sheet comprising the
second bond sheet bonded to the second base sheet; and

cutting the one or more bonded products from the first and second bonded sheets.

29. (previously presented): The method of claim 28 wherein a sheet of heat resistant
material is inserted between the adjacently disposed first and second bond sheets.